AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended): A composite comprising a body of glass having embedded therein a plurality of heterologous nanoparticles, wherein at least certain of said nanoparticles **are comprised of rare earth iron-garnet that** have a diameter of up to about 500 nm and are characterized by the property of altering the polarization of reflected or scattered electromagnetic radiation.

Claim 2 (Original): The composite of claim 1, said nanoparticles having a diameter of up to about 300 nm.

Claim 3 (Currently Amended): The composite of claim 1, there being from **about** 100-10^9 nanoparticles per mm^2 of a surface of said body.

Claim 4 (Currently Amended): The composite of claim ~~1~~3, said nanoparticles being present at a level of from about 10^7-10^9 nanoparticles per mm^2 of said body surface.

Claim 5 (Currently Amended): The composite of claim 1, there being from **about** 10^3-3 x 10^{13} nanoparticles per mm^3 of a surface layer of said body.

Claim 6 (Currently Amended): The composite of claim 5, there being from **about** $3x10^{10}$-3 x 10^{13} nanoparticles per mm^3 of said surface layer of said body.

Claim 7 (Currently Amendedl): The composite of claim 1, wherein at least certain of said nanoparticles **are comprised of** ~~being~~ yttrium-iron-garnet ~~nanocrystals~~.

Claim 8 (Currently Amended): The composite of claim 1, **wherein at least certain of** said nanoparticles ~~being~~ **are** nanocrystals.

Claim 9 **(Cancelled)**.

Claim 10 (Currently Amended): The composite of claim ~~9~~**1**, **wherein at least certain of** said **nanoparticles have** ~~rare earth iron garnet nanocrystals having~~ the formula $Fe_5Y_{3-x-y}M_xN_yO_{12}$ where M and N are different and are respectively taken from the group consisting of Bi, Gd, In, La, Pr, Nd, Pm, Sm, Eu, Tb, Dy, Ho, Er, Tn, Yb and Ln, and x and y are selected to satisfy the equation of $0 \leq x + y \leq 1$.

Claim 11 (Original): The composite of claim 1, said body being formed of porous glass.

Claim 12 (Original): The composite of claim 11, said porous glass being thirsty glass.

Claim 13 (Original): A composite comprising a body of glass having embedded therein a plurality of yttrium-iron-garnet nanoparticles.

Claim 14 (Original): The composite of claim 13, said nanoparticles having a diameter of up to about 500 nm.

Claim 15 (Original): The composite of claim 14, said diameter being up to about 300 nm.

Claim 16 (Currently Amended): The composite of claim 13, there being from **about** $100\text{-}10^9$ nanoparticles per mm^2 of a surface of said body.

Claim 17 (Original): The composite of claim 16, said nanoparticles being present at a level of from about $10^7\text{-}10^9$ nanoparticles per mm^2 of said body surface.

Claim 18 (Currently Amended): The composite of claim 13, there being from **about** 10^3-$3x10^{13}$ per mm^3 of said a layer of said body.

Claim 19 (Currently Amended): The composite of claim 18, there being from **about** $3x10^{10}$-3×10^{13} nanoparticles per mm^3 of said surface layer of said body.

Claim 20 (Original): The composite of claim 13, said nanoparticles being nanocrystals.

Claim 21 (Original): The composite of claim 20, said nanocrystals being yttrium-iron garnet nanocrystals.

Claim 22 (Currently Amended): The composite of claim 21, said yttrium-iron garnet ~~nanocrystals~~ **nanoparticles** having the formula $Fe_5Y_{3-x-y}M_xN_yO_{12}$ where M and N are different and are respectively taken from the group consisting of Bi, Gd, In, La, Pr, Nd, Pm, Sm, Eu, Tb, Dy, Ho, Er, Tn, Yb and Ln, and x and y are selected to satisfy the equation of $0 \leq x + y \leq 1$.

Claim 23 (Original): The composite of claim 13, said glass body being formed of porous glass.

Claim 24 (Original): The composite of claim 23, said porous glass being thirsty glass.

Claim 25 (Currently Amended): An electrooptical recording medium comprising the composite of claim 1 **or 13**.

Claim 26 (Original): The recording medium of claim 25, said composite mounted on a substrate.

Claims 27-52 **(Cancelled)**.

Claim 53 (Currently Amended): A composite comprising a body of porous glass having embedded within the pores thereof heterologous nanoparticles, wherein at least certain of said nanoparticles **are comprised of rare earth iron-garnet that** have a diameter of up to about 500 nm.

Claim 54 (Original): The composite of claim 53, said nanoparticles characterized by the property of altering the polarization of incident electromagnetic radiation upon reflection of scattering of the electromagnetic radiation.

Claim 55 (New): A composite body formed by a process comprising the steps of:

(1) providing a porous glass body;

(2) contacting said body with a dispersion including heterologous nanoparticles, at least some of said nanoparticles being comprised of rare earth iron garnet;

(3) causing at least certain of said nanoparticles to locate within pores of said body; and

(4) fusing said pores to embed said nanoparticles located in said body.

Claim 56 (New): The composite body of claim 55, wherein said contacting step comprises the step of forming a colloidal dispersion of said nanoparticles, and soaking said body in said colloidal dispersion.

Claim 57 (New): The composite body of claim 55, wherein said fusing step comprising the step of heating said body.

Claim 58 (New): The composite body of claim 57, wherein said heating step comprises the step of heating the glass body to a maximum temperature of at least about 650°C for a period of time sufficient to effect said fusing.

Claim 59 (New): The composite body of claim 58, wherein said maximum temperature is from about 650°C to 900°C and said period of time is from about 0.5 to 20 hours.

Claim 60 (New): The composite body of claim 55, wherein said porous glass has a pore diameter of up to about 15-400 nm.

Claim 61 (New): The composite body of claim 60, wherein said pore diameter is up to about 50-300 nm.

Claim 62 (New): The composite body of claim 55, wherein said nanoparticles are formed by the alkoxide method.

Claim 63 (New): The composite body of claim 55, wherein said dispersion comprises a kerosene and surfactant mixture, and said dispersion is formed by agitating said nanoparticles in said mixture so as to coat said nanoparticles with said surfactant.